

What is claimed is:

1. An image processing apparatus for performing at least one of JPEG 2000 encoding and decoding processes, comprising:

5 a JPEG 2000 hardware encoder-decoder which has a memory for wavelet transform and inverse transform with a specific capacity and performs wavelet transform and inverse transform of image information up to said specific tile size using said memory by only hardware components;

10 an acquirer of tile size information for acquiring a tile size information of image data to be encoded or decoded;

a determiner for determining whether said tile size acquired by said acquirer can be processed using only components constituting said JPEG 2000 hardware encoder-  
15 decoder or not;

a selector for selecting one of a first process and a second process based on result of decision by said determiner, the first process being wavelet transform and inverse transform process performed using only components  
20 constituting said JPEG 2000 hardware encoder-decoder and the second process being wavelet transform and inverse transform process performed using components other than components constituting said JPEG 2000 hardware encoder-decoder.

2. The image processing apparatus according to claim 1, wherein the second process is process using software for wavelet transform and inverse transform.

5 3. The image processing apparatus according to claim 1, wherein the second process is process using a memory separate from said memory for wavelet transform and inverse transform.

10 4. An image processing apparatus for performing JPEG 2000 encoding processes, comprising:

a JPEG 2000 hardware encoder which has a memory for wavelet transform with a specific capacity and performs wavelet transform of image information up to said specific  
15 tile size using said memory by only hardware components;

an operating interface for inputting tile size information of image data to be encoded;

a determiner for determining whether said tile size input by said operating interface can be processed using  
20 only components constituting said JPEG 2000 hardware encoder or not;

a selector for selecting one of a first process and a second process based on result of decision by said determiner, the first process being wavelet transform  
25 process performed using only components constituting said

JPEG 2000 hardware encoder and the second process being wavelet transform process performed using components other than components constituting said JPEG 2000 hardware encoder.

5

5. An image processing apparatus for performing JPEG 2000 decoding processes, comprising:

a JPEG 2000 hardware decoder which has a memory for wavelet inverse transform with a specific capacity and performs wavelet inverse transform of image information up to said specific tile size using said memory by only hardware components;

an acquirer of tile size information for acquiring a tile size information included in the JPEG 2000 file;

15 a determiner for determining whether said tile size acquired by said acquirer can be processed using only components constituting said JPEG 2000 hardware decoder or not;

a selector for selecting one of a first process and a second process based on result of decision by said determiner, the first process being wavelet inverse transform process performed using only components constituting said JPEG 2000 hardware decoder and the second process being wavelet inverse transform process performed using components other than components

constituting said JPEG 2000 hardware decoder.